4.2.6.6 Biological Resources

No Action Alternative

Under No Action, the Pu storage mission described in Section 2.2.6 would continue at SRS. These activities would result in no appreciable change to current conditions of biological resources at SRS as described in Section 3.7.6. [Text deleted.]

Upgrade Alternative

Preferred Alternative: Upgrade With Rocky Flats Environmental Technology Site Non-Pit Plutonium Subalternative

Modify Actinide Packaging and Storage Facility for Continued Plutonium Storage

Upgrading the APSF to accommodate RFETS non-pit Pu material would result in no appreciable change over the No Action Alternative since all activities would take place within a previously disturbed area.

[Text deleted.]

Upgrade With All or Some Rocky Flats Environmental Technology Site Plutonium and Los Alamos National Laboratory Plutonium Subalternative

Modify Actinide Packaging and Storage Facility for Continued Plutonium Storage

Upgrading the APSF to accommodate all or some RFETS and LANL materials would result in no appreciable change over the No Action Alternative since all activities would take place within a previously disturbed area.

Consolidation Alternative

Construct New Plutonium Storage Facility

Under this alternative, Pu materials would be consolidated in a new storage facility at SRS. Impacts to terrestrial resources, wetlands, aquatic resources, and threatened and endangered species are described below.

Terrestrial Resources. Construction of the consolidated Pu storage facility would result in the disturbance of 58.5 ha (144 acres), or less than about 0.07 percent of SRS. This includes areas on which permanent facilities would be constructed, as well as areas revegetated following construction. Vegetation within the proposed site would be lost during land-clearing activities. The majority of the proposed site consists of old fields and pine plantations that are common on SRS and throughout the region. Bottomland hardwoods and wetlands would be avoided to the extent possible.

Construction of a Pu storage facility would affect animal populations. Less mobile animals, such as amphibians, reptiles, and small mammals within the project area would not be expected to survive. Construction activities and noise would cause larger mammals and birds in the construction and adjacent areas to move to similar habitat nearby. If the area to which they moved was below its carrying capacity, these animals would be expected to survive. However, if the area was already supporting the maximum number of individuals, the additional animals would compete for limited resources, which could lead to habitat degradation and eventual loss of the excess population. Nests and young animals living within the assumed site may not survive. The site would be surveyed as necessary for the nests of migratory birds prior to construction. Upon completion of construction, revegetated areas would be of minimal value to most types of wildlife because they would be maintained as landscaped areas.

Activities associated with facility operations, such as noise and human activity, could affect wildlife living immediately adjacent to the facility. These disturbances may cause some species to move from the area. Disturbance to wildlife living adjacent to the facility would be minimized by preventing workers from entering undisturbed areas. Salt drift generated by mechanical draft cooling systems would be minimal and negligible impacts are expected.

Wetlands. Since the majority of the proposed site is upland, the facility could be located to avoid direct impacts to wetlands. Implementation of soil erosion and sediment control measures would control secondary impacts. Due to the relatively small amount of water required during both construction and operation, existing discharge structures would be used. Thus, it would not be necessary to disturb wetlands along the site streams. Any unavoidable impacts to wetlands would be mitigated according to DOE policy set forth in 10 CFR 1022 and in accordance with the requirements of a COE permit. Wastewater discharge to Fourmile Branch from construction and operation would be minimal and would not be expected to affect wetlands associated with the stream. All discharges would be treated as necessary to comply with NPDES-permit requirements.

Aquatic Resources. Stormwater runoff during construction of a Pu storage facility at SRS could cause temporary water quality changes in Fourmile Branch, Upper Three Mile Creek, and in Carolina bays. Increased turbidity could affect some fish spawning and feeding habitat. Fish populations probably would move to less-disturbed areas of the stream and recolonize disturbed areas shortly after construction is complete and water quality improves. Direct disturbance to aquatic resources in site streams are not expected since groundwater would be used for both construction and operation, and new discharge structures would not be required. During construction and operation, wastewater would be discharged to Fourmile Branch. These discharges (found in Section 4.2.6.4) would be minimal and would not be expected to affect aquatic resources. All wastewater would be treated as required.

Threatened and Endangered Species. It is unlikely that federally listed threatened or endangered species are expected to be affected by construction or operation of a consolidated Pu storage facility. Although suitable foraging habitat for the red-cockaded woodpecker exists in the area, the woodpecker colonies are located far enough from the site that this species would not be directly affected by the storage facility. Special status species that would potentially be affected by construction of the facility include the green fringed orchid, eastern tiger salamander, nailwort, and beak-rush. If present, individuals of each of these species would be lost due to land clearing activities or suffer impacts to habitat due to sedimentation of Carolina bays. Preactivity surveys would be conducted as appropriate prior to construction to determine the occurrences of these and other special status species, including the federally listed smooth coneflower (Table 3.7.6–1). Consultation with USFWS and State agencies would be conducted at the site-specific level, as appropriate.

As described in previous sections, operation of the facility would have minor effects on biotic resources. Therefore, impacts to special status species during facility operations are not expected.

Collocation Alternative

Construct New Plutonium and Highly Enriched Uranium Storage Facilities

Under this alternative, consolidated Pu materials would be stored with HEU inventories in a new collocated storage facility at SRS. Construction and operation of collocated storage facilities at SRS would have similar, but somewhat greater, effects on biological resources as those described for the consolidated storage facility. Construction of the collocated storage alternative would disturb 89.5 ha (221 acres) of habitat.

Subalternative Not Including Strategic Reserve and Weapons Research and Development Materials

The exclusion of strategic reserve and weapons R&D materials would have almost the same effects to the No Action Alternative, the Upgrade With All or Some RFETS and LANL Pu Subalternative, the Consolidation

Alternative, and the Collocation Alternative. The size of the facility would be similar and would not reduce the amount of habitat and thus lessen potential impacts to biological resources would be similar. [Text deleted.]

Phaseout

The phaseout of Pu storage facilities at SRS would not be expected to affect biological resources. Increased human activity could temporarily disturb some wildlife species in the vicinity of the site.